

Amongst the illustrations of "The Traveller," to which each subscriber will also be entitled, are some very fine drawings by Stanfield, E. M. Ward, Ansell, Martin, F. Goodall, Haine, Frost, Haskinson, Carr Thomas, and others.

#### ON THE ARCHITECTURE OF NINEVEH, AS ELUCIDATED BY RECENT DISCOVERIES.\*

Among the many archaeological discoveries made in recent times, no one has been either so unexpected, or at the same time so complete and satisfactory, as that of the palaces of the Assyrian kingdom, recently brought to light in the mounds in the Valley of the Tigris; and considering the short time that has elapsed, scarcely eight years, since Mr. Botta made his first successful excavation into the mound at Khorsabad, it is wonderful how much has been done to elucidate what was hitherto so obscure; for besides the good fortune of making such a discovery, it has been most opportune that it has fallen into the hands of such men as Botta, Layard, and Rawlinson; who have brought not only zeal, but an extraordinary amount of talent and sagacity to bear on the subject. Neither, however, of these gentlemen has attempted the architectural branch of the inquiry, which is the one to which I shall naturally confine my remarks on the present occasion, not only as the one most directly interesting to this audience, but also as the one on which alone I feel confident in giving any very decided opinion; and for the sake of making my remarks as intelligible as possible, I shall confine them almost wholly to one building—the palace of Khorsabad,—not only because it is one of the most interesting buildings hitherto brought to light, but because it is—owing to the superior liberality of the French government—the only one that has been so completely excavated, as to render its disposition even tolerably intelligible.

Before proceeding, however, to examine it, it may be necessary to make a few remarks on the chronology of the arts in Assyria, and also on the geographical position of the great cities that have been disinterred. With regard to the first, my own conviction is, that the three great periods of art have been brought to light by these discoveries.

The first belongs to the epoch of Nimrod and Abraham, or is slightly subsequent to that time. It is to this period, I believe, that the sculptures of Nimroud and Kalah Sherghat belong; indeed, almost all that Mr. Layard has sent home to the British Museum.

The second period is that of Ninus, Semiramis, and Ninyas, about B.C. 1350. To this period belong the palace of Khorsabad, which is to be the subject of the following remarks; the great Palace of Nineveh, known generally as the Kouyunjik mound; and scattered ruins over all the country.

The third period is that of the Salmanasser and Senacherib dynasty, to which belong the south-west palace at Nimroud, and some other insignificant ruins intermixed with those of the other periods.

A fourth period of art, though not strictly belonging to Assyria, is the epoch of the great dynasty of the Achæmenides of Persia, which completes and also closes the great Asiatic Art History, which, including the Persian period, runs through a space of near two thousand years, a longer duration for such a history, than any other class of art can show, except of course the Egyptian.

With regard to the geography I may state, that I believe Kalah Sherghat to be the Oulab of Genesis; and Nimroud, which is known to have been the Larium of the Greeks, to be the Resen of the same authority.

The site and position of Nineveh, I believe to be pointed out beyond a shadow of doubt, by the mounds opposite Mosul, which circumscribe a city capable of containing from two to three hundred thousand inhabitants, which number, as the kingdom of Assyria Proper never could have supported more than three million of people, is quite as much as the capital ever could have contained.

\* Read at the Ordinary General Meeting of the Institute of Architects, March 1881.

Khorsabad seems to have been a sort of suburban palace,—the Windsor of the Ninevite kings; though, as shown in the plan, a city was attached to it capable of containing 50,000 or 60,000 inhabitants.

The palace itself was situated in a breach in the north-west wall of the city, projecting beyond it into the plain, as seems also to have been the case with the two metropolitan palaces at Nineveh, and indeed generally was, as far as we can judge from what remains, the usual arrangement for such edifices.

The mound or terrace which supported the edifice itself, was a square of about 600 feet each way, rising about 30 feet from the plain. Inwards from this was a second and lower mound, about twice the length and half the breadth, situated within the city, and across which apparently was the only access to the palace itself.

Nearly in the centre of the lower mound was situated a propyleum or great gate, or hall of entrance, which is the only building of which any remains have yet been found on this terrace.

Beyond this there must have been a flight of steps to ascend to the upper terrace, probably situated near where I have placed them on the plan. These led to the outer court, on the left hand of which was the harem, and in front the vaulted passage or entrance leading to the palace itself.

The exterior wall of the harem, both for its extent, the splendour of its sculptural decoration, and the magnificence of its portals, must have been the most imposing feature in the palace; its interior, however, is very inferior to that of the palace properly so called, its walls being composed only of brick, without that revêtement of sculptured alaba to which its exterior, and the palace itself, owe nearly all their interest. Some slabs, it is true, do exist in the court yard, but they generally are unsculptured.

Passing through the vaulted passage the visitor enters the palace court, open on two sides to the country, and on the other two enclosed by buildings, represented in the drawing on the wall.

The principal part of the palace consists of three rooms, placed side by side, and one across their ends facing the country: all these are of the same length, about 116 feet, but vary in breadth from 21 to 33 feet, and they are separated from one another by enormously thick walls, in some instances 21 feet thick, while in others the dimensions vary from that to 13 feet.

Up to the height of about 10 feet from the floor, all the walls of all these apartments are revêted with alabaster slabs, covered with sculptures in low relief, so that no difficulty whatever is experienced in restoring the palace to its pristine form, as far as that height is concerned: above that, however, no direct authority is obtained from anything now found in the buildings themselves; and we are left mainly to conjectures derived from the form of the lower part of the walls to the exigencies of the building, and at the same time such analogies as can be obtained from contemporary or cognate buildings in Egypt, Syria, and Persia. Taking, however, all these authorities, and comparing them with one another, and with what exists on the spot, my own impression is, that the mode I have adopted in restoring them cannot be very far from the truth, though of course it may be modified by subsequent discoveries, or a more careful elaboration of those already brought to light.

To me it appears that the thickness of the walls is by no means an accidental circumstance, arising from the nature of the material used, but an exigence of the mode of building; the tops of these walls being, in fact, galleries, which to their extent almost exactly equalled the superficial area of the floor of the buildings themselves. So that they, in fact, formed an upper story to the palace.

On these walls were placed two ranges of dwarf columns, one on the inner and one on the outer edge, forming externally a loggia, through which light was introduced, and, as will be observed, the walls are always thicker on the outer parts than in the inner rooms,

where they supported galleries; but the outer wall of the palace itself is the thinnest of any, because in that place there could have been no gallery. The pillars, however, which stood on the walls could not have sufficed to sustain a flat roof—so heavy as Eastern flat roofs generally are—across a span of 33 feet, and there must consequently have been pillars on the floor between them: these pillars must have been of wood, most probably of cedar, as, had they been of any less combustible material, some remains of them would have been found, which is not the case; and all analogy from contemporary buildings, and from the remains existing at Persepolis, points to wood not only as the most probable, but indeed as the only material used.

The most difficult part of the whole to restore is the roof over the central apartment. As it was more elaborately adorned with sculpture on a smaller scale than the two outer apartments, it is evident it must have been at least as well lighted; but as it was surrounded on all sides by other rooms, light could only be introduced from the roof. As a skylight is totally inadmissible, I have adopted a mode which is at least as convenient, and is such as was used in Egypt before that day, and is used in India at the present time; besides which, it has the authority of the Persian tombs of the Achæmenides, which I believe certainly represent a hypæthron of the sort.

With these adjuncts, arranged as shown in the view and section given in "THE BUILDER," the whole building is not only intelligible, but every piece of it becomes a necessary and inherent part of such a mode of construction.

The numerous remains of colour found on the bassi reliefs, and more particularly the large quantity of glazed and coloured tiles and bricks that are found in all the apartments, in such a position as to show that they lined the upper part of the walls above the slabs, all prove incontrovertibly that the whole of these palaces was as richly adorned with colour as the mosques and palaces of Persia are at the present day. Indeed, in that country it may almost be said, that colour is more architecture than form is.

Another curious peculiarity of this art is the extent to which animated forms are used—all the plain surfaces being covered with them; and even the constructive parts, such as doorposts, and all the returns and angles of the walls, which in other styles were formed of masses of stone or pilasters, or rustication, or some such form, are here either winged bulls, or winged figures, or some form of animated nature: these always form the principal architectural decorations, while the pillars and constructive supports, which are in other styles the principal parts, are here entirely subordinate, and of inferior materials.

One other point I may allude to, that all that is Ionic in the arts of Greece came from the banks of the Tigris and Euphrates, as all that is Doric came out of Egypt. By this I mean, that not only the form of the pillars, but the whole spirit and essence of the order, and of the art which accompanied it, derived their origin from the East; a matter for consideration, which opens up one of the most interesting fields of inquiry to those who delight to trace the affiliation of the various branches of art to their origin in the lands of their birth. These Assyrian discoveries enable us to do this, as far as Greece is concerned, and now, for the first time, one of the greatest divisions of her arts has an intelligible source and origin.

JAMES FENOLSON.

**PROVIDENT INSTITUTION OF BUILDERS' FOMENAN.**—We are glad to find that this society is making steady progress: thirty or forty new members have been added: several have been relieved, and two widows of members placed on the pension fund. The annual dinner in aid of it is advertised to take place on the 27th inst., and will, we trust, be well supported. Mr. Henry Lee will preside, Mr. Thomas Piper will fill the vice-chair, and there is a long list of patrons and stewards, including some very eminent names.